



Luxam **Hybrid 24 channel Fibre Dimmer**

User's Manual

software version 1.3



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Avolites Inside

Please note that the fan will always turn for about 30 seconds after power on. If the dimmer is cold the fan may switch off after this initial period to minimize the fan usage. The fan starts at around 35 degrees C

5. Ratings

Main Input Voltage: 90~240V AC, Nominal Input Current: 1A

PSU fixed fuse rating: 5A HRC

Max operating temperature: 40 degrees C

Not for outside use

4.3.1 Setting the Universe

- ➔ Press [Menu/Accept] until the *SETTINGS* screen is displayed
- ➔ Assure (using [Menu/Accept]) that the "DMX Universe" is high-lighted (see screen shot below)

```
-----SETTINGS-----  
DMX Universe 000
```

- ➔ Use [Up] or [Down] to change the Universe so it is the same as the Art-net Source
- ➔ Use [Menu/Accept] to confirm.

Note: Holding [Up] or [Down] will auto-increment the address

4.3.2 Use Setting the IP address

- ➔ Press [Menu/Accept] until the *SETTINGS* screen is displayed
- ➔ Assure (using [Menu/Accept]) that the "IP" (see screen shot below)

```
-----SETTINGS-----  
IP 002 093 030 007
```

- ➔ Use [Up] or [Down] to change the IP fields
- ➔ Use [Menu/Accept] to confirm

Note: Holding [Up] or [Down] will auto-increment the address

4.3.3 Use Setting the IP mask

- ➔ Press [Menu/Accept] until the *SETTINGS* screen is displayed
- ➔ Assure (using [Menu/Accept]) that the "IPM" (see screen shot below)

```
-----SETTINGS-----  
IPm 255 000 000 000
```

- ➔ Use [Up] or [Down] to change the IP fields
- ➔ Use [Menu/Accept] to confirm

Note: Holding [Up] or [Down] will auto-increment the mask

4.4 Diagnostics screen

The diagnostics shows the status and other useful information of the dimmer. To enter the diagnostics screen:

4.4.1 Diagnostics screen

- ➔ Press [Menu/Accept] until the *DIAGNOSTICS* screen is displayed (see screen shot below)

```
-----DIAGNOSTICS-----  
Build Oct 27 2008           is the current software version  
S/N 013 000 000 001       is the serial number  
Temperature 40C           is the heat-sink temp. in degrees  
Celsius
```

→ Press [Menu/Accept] to store the new address

Note: Holding [Up] or [Down] will auto-increment the address

The Start address can range from 001 to 512.

4.2 Local level control

4.2.1 To test a channel local;

→ Press [Menu/Accept] until the SETTINGS screen is displayed

→ Assure (using [Menu/Accept]) that the Channel test is high-lighted (see screen shot below)

```
-----SETTINGS-----  
Channel Test  OFF
```

→ Use [Up] or [Down] to change

→ Use SELECT to confirm

Note: The levels and test mode are preserved after power-down.

4.2.2 Setting local test levels;

→ Press [Menu/Accept] until the TEST LEVELS screen is displayed (see screen shot below)

```
-----TEST LEVELS-----  
Test 1          000  
Test 2          000  
Test 3          000  
Test 4          000
```

→ Press [Menu/Accept] until the desired channel TEST line is highlighted

→ Using [Up] or [Down] to change the level

→ Press [Menu/Accept] to confirm the level and auto-increment to the next channel

Note: Holding [Up] or [Down] will auto-increment the level (fade)

Double pressing [Up] or down will snap the level to 255 or 000

You can leave the levels set and switch all channel on or off by changing the channel test to off in the SETTINGS screen.

The levels and test mode are preserved after power-down.

4.3 Art-net

The Fibre dimmer can BE controlled via an Ethernet connection with Art-net DMX Data, for this to work the dimmer needs the following.

- An Ethernet connection to a controller that sends out Art-net data
- The Hybrid dimmer Universe is set to the same universe as the data source
- The Hybrid dimmer to have the correct Start address
- The Hybrid dimmer to have a unique IP address
- The Hybrid dimmer to have a unique IP mask

Below follows a step by step instruction, the addresses are fictional and need to be worked out for each setup separately

stays accessible, and that the user interface is visible for operations and periodical checks.

The dimmer can simply be placed on a bench or shelf as it is shipped.

They can be stacked up to 3 high. It is recommended though not to do this above eye level for safety reasons.

When placing the dimmer on top of a cabinet, make sure that the dimmer is save and cannot fall. This can be done by fixing screws trough the side flanges into the cabinet.

3.2 Thermal considerations

The dimmer uses high output LED's which produce heat inside the dimmer. This heat is dissipated into the air by means of a high capacity heat-sink and speed controlled and monitored fan. Fresh air is taken in at the mains inlet-end and warm air is expelled on the front, near the Fibre outlets. The dimmer is designed to operate in ambient temperature of maximum 40 degrees C.

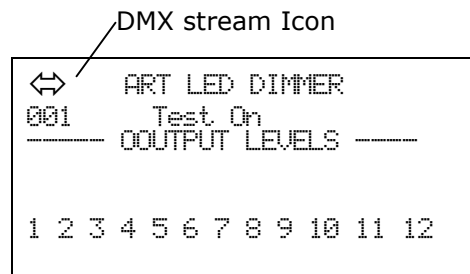
When installing the dimmer, do **not** obstruct the vent holes near the Fibre outlets. Obstructing the vent holes will ultimately lead to the unit overheating, and possibly shutting down.

Note: The fan will always turn for about 30 seconds after power on. If the dimmer is cold the fan may switch of after this initial period to minimize the fan usage. The fan starts at around 35 degrees C

4. Control features

4.1 DMX start address

The dimmer can receive DMX trough the DMX inlet provided. The dimmer will respond to the levels send after a valid data stream is received. At this time the data icon will be solid on the LCD screen. The edge of the data Icon is shown when no DMX is received the. The 24 channels are decoded sequentially from the set start address. The dimmer will retain the DMX levels after a DMX stream is lost (unplugged), the data Icon then changes to a Key (Data locked) see screen shot below.



4.1.1 To set the DMX start address;

- ➔ Press [Menu/Accept] until the *SETTINGS* screen is displayed
- ➔ Assure (using *SELECT*) that the *DMX address* is high-lighted (see screen shot below)



- ➔ Use [Up] or [Down] to change the start address

The dimmer is for internal use only. Run leakage current is typically 0.5mA

Chock hazard! Do NOT open the unit while the IEC inlet is connected. No User serviceable parts inside.

Please note that the unit has an over-temperature protection feature whereby the LEDs are switched off. If the unit stops operating and feels very hot (over 50 degrees C on the outside) let it cool down and retry to power it up after half an hour. (See also: Positioning the unit).

2.2 DMX connection:

The dimmer can be controlled from a lighting control console or environment control via the DMX512 control inlet. The DMX inlet is ANSI DMX-512A compliant. A Female loop out connector is provided.

In most situations the DMX is connected using a 5 pin XLR female as a source. The pins are connected as follows:

Pin 1 Isolated ground

Pin 2 DMX + Data

pin 3 DMX – Date

Pin 4,5 not used by the dimmer, routed trough to the female loop socket

The DMX input is optical and galvanic isolated from the Dimmer electronics.

A self-terminating feature is build in whereby the DMX network is terminated when there is no XLR plug inserted into the female loop out.

Inserting a XLR into the Loop out will remove the 120R termination resistor. Take care therefore that no unused loop out connections are made, as this leaves the DMX network un-terminated.

2.3 Connecting the fibres.

Read the Luxam inc. manuals for the light head end of the fibre connection.

Fibre termination into the Dimmer:

The fibres are inserted into precision plugs, which locate and hold the fibre directly into the light path of the LED.

2.3.1 *Fitting fibres;*

- ➔ *Remove the fibre plate and insert the fibre trough.*
 - ➔ *Run the fibre into the plug starting from the side with the radial cut.*
 - ➔ *Align the fibre end to the bottom of the chamber of the plug.*
 - ➔ *Insert the plug into the fibre plate. This takes some force as this is an interference fit to clamp the fibre.*
 - ➔ *Check that the fibre end is still flush with the chamber.*
 - ➔ *Repeat this for the remaining fibres.*
 - ➔ *If channels are not use, block the outlets to prevent light leakage.*
-

3. Positioning the unit

3.1 Orientation and positioning

The dimmer can be used in any orientation. It is recommended that the unit

1. Introduction

1.1 Important safety information

- ➔ *The system should be installed and operated by a competent person.*
- ➔ *Always install the dimmer according to the local electricity code and safety regulations.*
- ➔ *Block unused Fibre channels to reduce the risk of eye damage.*
- ➔ *This unit is designed for indoor use only.*
- ➔ *No user serviceable parts are inside.*
- ➔ *This is a mains appliance, Chock hazard! Do NOT open the unit.*

1.2 Quick start instructions

1.2.1 Quick start connecting the unit;

- ➔ *Connect the dimmer to the mains supply using a 10A IEC appliance plug.*
 - ➔ *Optionally connect the dimmer to a DMX-512 source*
 - ➔ *Switch the dimmer on by operating the mains switch near the mains inlet socket.*
-

1.2.2 Quick start Manual level control;

- ➔ *Press the [Menu/Accept] button to scroll to "Channel Test" and use the [UP] button to select "Channel Test ON".*
 - ➔ *Press [Menu/Accept] to scroll to the "TEST LEVELS" screen, Using [Menu/Accept] select the correct channel and use [Up] or [down] to change the level.*
 - ➔ *Use [Menu/Accept] for other channels, use Exit to escape this menu Double pressing [Up] or Down will set the level to Full or 00 respectively*
-

1.2.3 Quick start DMX level control;

- ➔ *Press[Menu/Accept] which bring up the Menu at the "Start Address" line*
 - ➔ *Use [Up or Down] to select the desired DMX start address.*
 - ➔ *Use the DMX source to fade up the dimmer channel.*
 - ➔ *The levels can be monitored on the LCD screen by pressing Exit until the "OUTPUT LEVELS" screen is up.*
-

2. Connections

2.1 Mains

The Dimmer can be connected to the mains supply with an AC voltage ranging from 90Vac to 240Vac. Use a correct 10A IEC plug for this. The dimmer has No user replaceable fuses. The supply should be limited by a fuse or breaker of max 20A. The dimmer is a class 1 product and thus needs to be connected to protective earth (PE) at all times. This normally happens via the IEC inlet.

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Email name@avolites.com

Website <http://www.avolites.com>

*Before contacting Avolites for service enquiry please ensure that you have the product serial number and the Software version (shown at switch on).

The latest version of this manual (MS Word 2000 & PDF) can be downloaded from the Internet.

The small print :

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